SELECTIVE METAL OXIDE REMOVAL

Abstract of the Disclosure

A metal oxide, utilized as a gate dielectric, is removed using a combination of gaseous HCl (HCl), heat, and an absence of rf. The metal oxide, which is preferably hafnium oxide, is effectively removed in the areas not under the gate electrode. The use of HCl results in the interfacial oxide that underlies the metal oxide not being removed. The interfacial is removed to eliminate the metal and is replaced by another interfacial oxide layer. The subsequent implant steps are thus through just an interfacial oxide and not through a metal oxide. Thus, the problems associated with implanting through a metal oxide are avoided.